

WHAT IS CLAIMED IS:

1. An expansion valve including a power element that senses pressure and temperature of refrigerant at an outlet of an evaporator and controls a valve lift of a valve portion, to thereby control a flow rate of refrigerant supplied to the evaporator,

characterized in that a maximum value of the valve lift is set such that the flow rate is equal to 1.0 to 1.4 times a flow rate corresponding to a set tonnage.

2. The expansion valve as claimed in claim 1, wherein the power element causes a center disk for transmitting displacement of a diaphragm sensing the pressure and temperature of the refrigerant to a valve element of the valve portion via a shaft to be brought into abutment with an inner wall of a housing toward the valve portion, thereby defining the maximum valve lift of the valve portion.

3. The expansion valve as claimed in claim 2, wherein the center disk is guided in a direction of displacement of the diaphragm, by a holder holding an end of the shaft on a side opposite to the valve portion.

4. The expansion valve as claimed in claim 1, wherein the valve portion comprises a valve seat, a valve

element having a shape of a ball and disposed in a manner
opposed to the valve seat from an upstream side, and a
spring for urging the valve element in a valve-closing
direction, and wherein the valve seat is tapered such that
5 an amount of tapering is equal to or larger than an amount
of axial motion of the valve element.